

Claims

- [c1] 1. A photomask positioning apparatus, for a photomask box having a substrate comprising fixing devices formed at two sides thereof, each fixing device having a holding element for holding against a photomask, one side of the holding element having a plurality of limiting plates, a lid covering a top of the substrate and the lid enclosing a containing space for receiving the photomask, the photomask positioning apparatus comprising:
a positioning device, respectively disposed at two sides of a bottom of the containing space, the positioning device comprising a base, one end of which comprises a bended fixed portion connected to a bottom of the containing space and the other end of which is away from the fixed portion comprises a bended positioning portion such that the photomask can be positioned between the positioning portions set at the two sides of the containing space.
- [c2] 2. The photomask positioning apparatus of Claim 1, wherein the fixed portion of the positioning device further comprises a positioning slot embedded in a positioning axle set at a bottom of the containing space.

[c3] 3.The photomask positioning apparatus according to claim 1, wherein the positioning portion of the positioning device comprises a guiding surface.

[c4] 4.The photomask positioning apparatus according to claim 3, wherein pulleys are set on the guiding surface.

[c5] 5.The photomask positioning apparatus according to claim 1, wherein the positioning devices set at the two sides of the containing space can be one or more than one.

[c6] 6.The photomask positioning apparatus according to claim 1, wherein the positioning devices is comprised of rubber material.

[c7] 7.The photomask positioning apparatus according to claim 1, wherein the positioning devices is comprised of plastic material.

[c8] 8.The photomask positioning apparatus according to claim 1, wherein the positioning devices are fabricated using a one-step process.

[c9] 9.A photomask positioning apparatus, for a photomask box having a substrate comprising fixing devices formed at two sides thereof, each fixing device having a holding element for holding a photomask, a plurality of limiting

plates set on one side of the holding element, a lid covering a top of the substrate and the lid enclosing a containing space for receiving the photomask, the photomask positioning apparatus comprising:

a holding device comprising a base and a holding portion, disposed one side of the containing space, wherein the base is fixed in the containing space, one side of which comprises a connecting element for setting a spindle set at a connecting end of the holding portion and other side away from the connecting end of the holding portion comprises a shifting end, and wherein a central axis connects the shifting end and the connecting end so that the holding portion can be rotated and shift by the central axis to achieve an effect of holding.

[c10] 10.The photomask positioning apparatus according to claim 9, wherein a plurality of holding wheels are set on the central axis connecting the connecting end and the shifting end of the holding portion.

[c11] 11.The photomaskpositioning apparatus according to claim 10, wherein the plurality of holding wheels on the central axis is made of a soft material.

[c12] 12.The photomaskpositioning apparatus according to claim 10, wherein the plurality of holding wheels on the central axis is made of a Polyetheretherketone (PEEK)

plastic material.

- [c13] 13.The photomaskpositioning apparatus according to claim 9, wherein the shifting end of the holding portion comprises shifting wheels at other side thereof away from the central axis.
- [c14] 14.The photomaskpositioning apparatus according to claim 13, wherein the shifting wheels at one side of the shifting end is made of a soft material.
- [c15] 15.The photomaskpositioning apparatus according to claim 13, wherein the shifting wheels at one side of the shifting end is made of a Polyetheretherketone (PEEK) plastic material.